

### Federal Reserve Rate Hikes – A Historical Perspective

After a long period of monetary ease, the first increase in interest rates has typically resulted in greater volatility in both the stock and bond markets. A look back at historical capital markets cycles indicates that we have seen market reactions in the range of a 10% to 35% drop in stock prices directly following the first increase in rates. We have no reason to believe that this time will be different.

A look back at history can give us some perspective on how the market reacts to these shifts. In the summer of 1987, for example, interest rates had been stable for a number of years. During this time, equity markets had soared over 40% in the previous year and resulted in price/earnings ratios climbing to their highest levels in decades. The S&P 500 climbed to a 22 P/E multiple based on forward earnings and a 27 P/E multiple based on trailing earnings. As inflation started to pick up, currencies became volatile and bonds started to sell off. Fed Chairman Alan Greenspan raised rates in July 1987 and the market peaked in August. Interest rates were again increased in September. The combination of these factors led to the Dow Jones Industrial Average's one-day 508 point decline on October 19th. The following day, Greenspan cut rates. Nonetheless, the stock market sustained a loss of 35% following the 1987 initial rise in rates.



Chart 1: 1987 decline in S&P 500

Source: Bloomberg

Following the first interest rate hike in 1994, the S&P 500 declined 10% while the Nasdaq and Russell 2000 dropped 14%. Economic activity did not slow, however, and the bull market resumed.



Chart 2: 1994 decline in Nasdaq

Source: Bloomberg

In 1998 the Fed cut rates in response to the Russian financial crisis and the Long Term Capital Management collapse. Then in 1999, the Fed began to hike rates again which produced a subsequent 12% correction in the S&P 500. The stock market quickly recovered thereafter. Rates resumed their steady move higher with the Fed raising its benchmark rate in increments of 50 basis points. The last hike was made by the Fed in May of 2000 after the stock market peak. The S&P 500 subsequently declined 49% from the 2000 top to the 2002 market bottom. The Nasdaq 100, which had led the late 1990's bull market, dropped over 75% by the end of 2002.

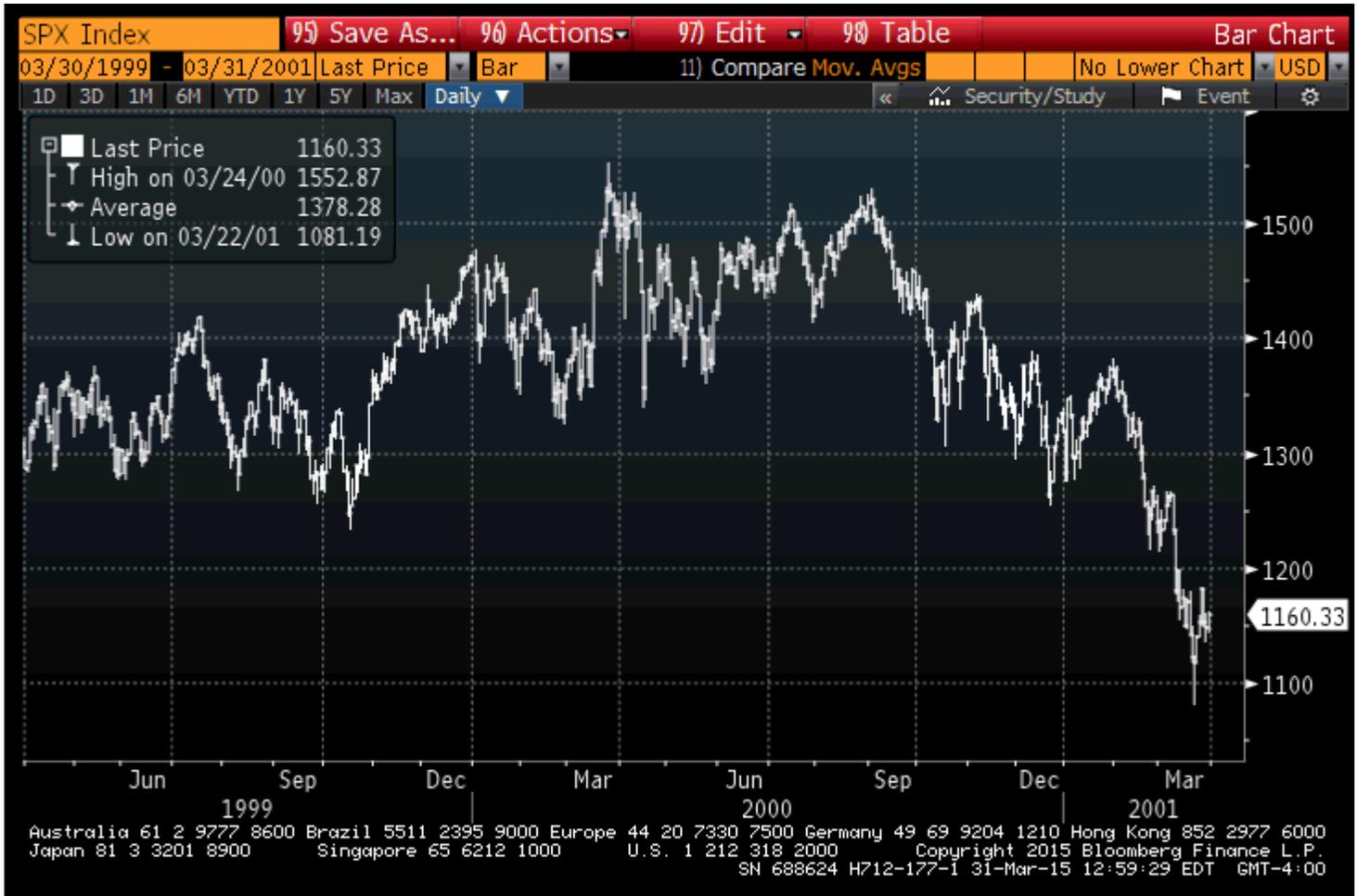


Chart 3: 1999 - 2001 decline in S&P 500

Source: Bloomberg

In summary, each initial rate increase in the last 30 years, after a period of interest rate stability, has produced increased market turbulence. Due to the almost instantaneous dissemination of information today, markets discount much better now than they did in the past. We have already seen a significant increase in overall market volatility following the end of QE in October of last year. More recently, a hot jobs report in March 2015 shook the markets. Janet Yellen soothed the markets immediately thereafter with her comments about patience. Even so, there is no doubt that the markets seem to be far more sensitive today than they have been in quite a while as evidenced by the increased overall level of volatility.

While history does not always repeat itself, a review of the past can often provide us with a perspective on what we might expect in the future. In the event of an initial interest rate hike later this year, or as a result of the anticipation and discounting of such a rate hike, Broadmark is prepared to navigate any resulting increase in volatility and subsequent possible stock market correction.